WATER QUALITY DIVISION
103 South Main Street
Building 10 North
Waterbury, VT 05671-0408

FAX 802-241-3287
TEL 802-241-3777

August 22, 2002

Hilary Snook
USEPA Region I
Regional Laboratory
11 Technology Drive
North Chelmsford, MA 01836-2431

Dear Hilary:

The Vermont Department of Environmental Conservation (VDEC) is currently involved, through a cooperative agreement with your office, with the evaluation of biological condition in wadeable streams in the State of Vermont as well as throughout the Northeast (the New England Wadeable Stream Project - NEWS). VDEC has not always been supportive of probability-based sampling designs as promoted by REMAP primarily due to incompatibilities with state monitoring priorities and lack of programmatic resources for implementation. The NEWS project has addressed both of these issues. Resources have been provided to the State of Vermont for the purpose of implementing a probability-based biological assessment program that will provide a "statewide assessement" of all wadeable streams, consistent with Clean Water Act requirements. The sampling design for Vermont has been modified to be compatible with VDEC's rotational monitoring and assessment strategy, permitting the distribution of effort over five years and concentrating probability sites in the current rotational watershed. This design allows the VDEC to optimize compatibility of probability sampling with other state monitoring and assessment priorities.

More exciting and potentially more rewarding, however, is the opportunity that this project provides for surmounting the difficulties of interstate regional assessment consistency. For years, biologists from the New England states environmental management programs have been discussing how to use state monitoring data to make regional assessments. The issue of differences in sampling methods has never been resolved, resulting in total stalemate. The data being gathered by the NEWS project, in conjunction with program data being gathered by participating New England states, will provide a wealth of information for testing ecological gradient and human disturbance theory as discussed by EPA at national bioassessment/biocriteria workshops. Comparing individual state assessments, using state methods, with a standard data set using a

consistent regional methodolgy (NEWS) has the potential to make methodology-independent comprehensive assessments biological condition within and across state boundaries a standard operating procedure. This represents a huge step forward in the process of gaining consistency within the 305(b) reporting requirements. In addition, assessing the results of this project will provide an exciting and rewarding opportunity for state biologists within the region to discuss biological condition gradients, human disturbance gradients, reference conditions, the meaning of impairment and a host of other significant issues related to the interpretation of biological data and the implementation of biological water quality assessments.

You are also aware that VDEC is also involved in another regional REMAP project, designed to assess the level of mercury contamination existing in lakes and ponds across both Vermont and New Hampshire. The design of this second project is such that results are providing necessary information about the overall level of mercury contamination in all VT/NH lakes. The ensuing data permit the formal statistical evaluation of influential environmental factors mediating mercury contamination. In addition, these findings are being integrated with findings from a parallel atmospheric mercury monitoring project, to provide a comprehensive picture of mercury deposition, transport, and fate in northern New England. Accordingly, this project has provided a very important, and previously unavailable dataset to a part of New England where such information was seriously lacking. Thus, like the NEWS project, the mercury REMAP project is providing a level platform by which mercury contamination can be assessed on a regionwide basis, absent biases interjected by individual State monitoring designs and concerns.

VDEC believes that the REMAP-NEWS and Mercury programs currently being implemented in Region 1 are of significant interest to many states and could result in a framework for continuing comprehensive aquatic environmental assessments within the region, implemented by states within their existing monitoring programs, with modest (but critical) continued funding from EPA for the effort. For your consideration, one arena VDEC feels that a new REMAP initiative may be useful is in the biological assessment of lakes and ponds. Should such an initiative be developed for Region 1, VDEC staff would welcome the opportunity to participate in the design and implementation of such a project.

In summary, the efforts of the Region 1 REMAP initiatives to address State monitoring priorities, provide resources, and provide flexibility have been critical both to Vermont's participation in NEWS, and to a needed comprehensive evaluation of the difficult mercury problem. Continued support of these initiatives should be an important consideration for USEPA.

Sincerely,

Doug Burnham, Aquatic Biologist
Neil Kamman, Environmental Scientist